Work Order ID 111225

January-09-14 12:50:29 PM

111225

Item ID: D4635-3 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Aft Ceiling Panel, LH

Start Date: 09/01/2014 **Start Qty:** 1.00 *1*

Required Date: 24/01/2014 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** MP MLO **Date:** 14-01-09 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D4635	~~PD2C~~ 1								
100		0.00							
100	HAND FINISHING THERMOFORMING					x1	____	____	14/01/12
Thermoform	**Memo**	0.00							
Thermoforming Machine	Cut Blanks								
105		0.00							
105	Dry Material					x1	____	____	14/01/12
HandThermo	**Memo**	0.00							
Hand Finishing Thermoforming	Dry Sheet as per QSI022 KYDEX								

Temp: 245° F

Time IN: 5:00 pm 14/01/11

Time OUT: 6:00 am 14/01/12

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Item ID: D4635-3 **Accept** *N9000040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Aft Ceiling Panel, LH

Start Date: 09/01/2014 **Start Qty:** 1.00 *1*
Required Date: 24/01/2014 **Req'd Qty:** 1.00 *1*
Reference:

Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
110	THERMOFORMING MACHINE					x1			DL 14/01/12
Thermoform	**Memo**	0.00							
Thermoforming Machine	Thermoform as per Dwg. D4635-3 and Folio FTA149								
	Dwg. Rev. E								
	Folio Rev. B								
	Visually inspect for proper formation and texture								
130		0.00							
130	HAND FINISHING THERMOFORMING					x1			DL 14/01/16
Thermoform	**Memo**	0.00							
Thermoforming Machine	Trim to Finished Dimensions								
140	QC2- Inspect parts off machine FAI/FAIB	0.00							
140						x1			DL 14/01/16
QC	**Memo**	0.00							
Quality Control									

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Suspected Unapproved	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Crosstube	☐	Water Jet	☐
Machining	☐	Small Fab	☐	Prod. Eng. Coor.	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐
Large Fab	☐	Composite	☐	Supplier	☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric
- ☐ Cracks
- ☐ Crimp/Kink/Ripple/Wave
- ☐ Cuffs
- ☐ Crushing
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Marks/Chatter
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damage/Defect
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drawing
- ☐ Drill Holes
- ☐ Finish
- ☐ Fit/Function
- ☐ Folio/Program
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
- ☐ Mislabeled
- ☐ Misread
- ☐ Off-set
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Item ID: D4635-3 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Aft Ceiling Panel, LH
Start Date: 09/01/2014 **Start Qty:** 1.00 *1*
Required Date: 24/01/2014 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00	DAS 16 9-89 14/0c/23			(1C)			
150 QC Quality Control	Memo	0.00							
160		0.00	med FAB						
160 Packaging Packaging	Packaging					(1)	SLP	14/0c/24	
	Memo	0.00							
170	QC21- Final Inspection - Work Order Release	0.00							
170 QC Quality Control	Memo	0.00				MW 14-9-27			

MF 14-1-24

DQA: _____ Date: _____

DART AEROSPACE

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric
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- ☐ Cuffs
- ☐ Crushing
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Marks/Chatter
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damage/Defect
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drawing
- ☐ Drill Holes
- ☐ Finish
- ☐ Fit/Function
- ☐ Folio/Program
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
- ☐ Mislabeled
- ☐ Misread
- ☐ Off-set
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

January-09-14 12:50:34 PM

Work Order ID: 111225 *111225*

Parent Item: D4635-3 *D4635-3*

Parent Item Name: Aft Ceiling Panel, LH

Start Date: 09/01/2014 **Required Date:** 24/01/2014

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B Dwg. Update 12/11/08 DL IPP Rev C Dwg. Ulpdate 13/07/09 DL IPP Rev. D Dwg. Update, Material Change 13/12/18 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	1,861.260	9.39	10			

MLEXS.093-F6006-07

GE PLASTICS LEXAN SHEET

**

Location	Loc Qty	Loc Code
MAT023	1861.26	
114459	229.26	
123105	38	
124501	1594	

10 sq ft

14/01/13

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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General

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☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

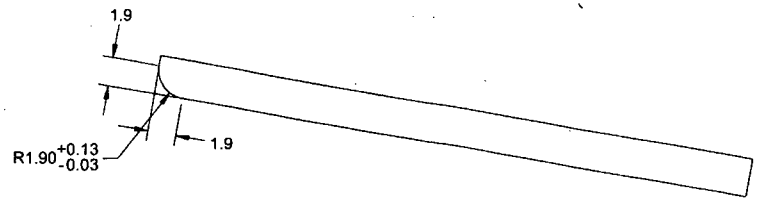
DART AEROSPACE LTD

Description:	PANEL	**Work Order:**	111225
Inspection Drawing:	D4635	Rev: ~~PETE~~ DL	Part Number: D4635-3

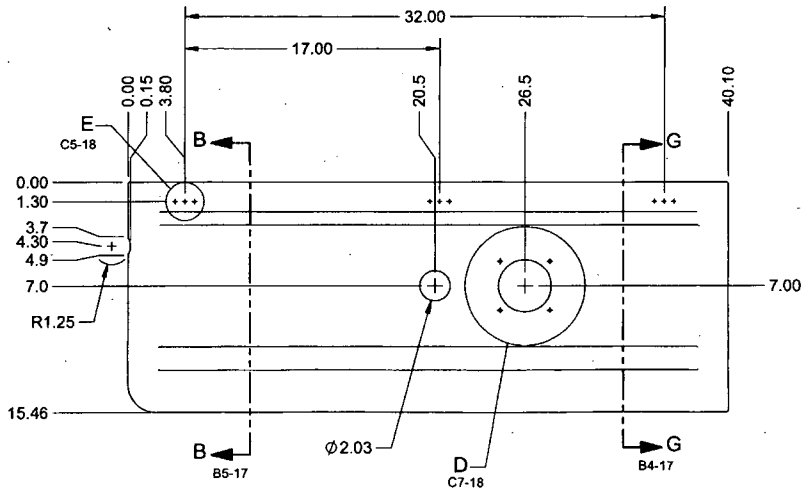
INSPECTION SHEET

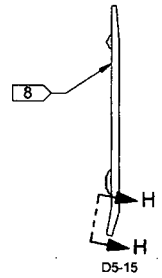
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.30"	+/- .030	0.307"	✓		Vernier DL-02	
0.35"	0.35-0.40	0.38"	✓		"	
0.50"	+/- .030	0.52"	✓		"	
Ø 3.50"		3.53"	✓		"	
Ø 2.03"	~~.005-.001~~	2.01"	✓		"	
Ø 0.191"	.005-.001	0.191"	✓		"	
Ø 0.179"	.005-.001	0.179"	✓		"	

Measured by: DL	**Checked By:** S	**QC inspector:** S	**Engineering Approval** (*if necessary*)**:**
Date 14/01/24	**Date** 14/01/23	**Date** 14/01/23	**Date**



SECTION H-H B2-15





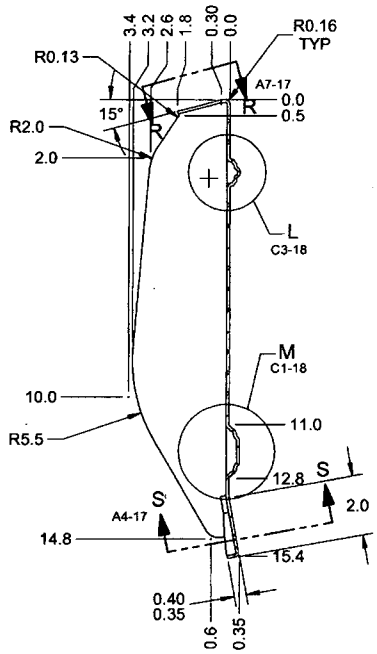
NOTES:
1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 2.66 lbs
8) TEXTURE ON THIS SIDE
9) TRIM D4635-3 PER TOOL DT9841
10) THERMOFORM D4635-3 PER QSI 022 USING DT9849 TOOL
MIN. THICKNESS AFTER FORMING:
RIDGES/EDGES = 0.060
ELSEWHERE = 0.070

D4635-3 LH, AFT CEILING PANEL

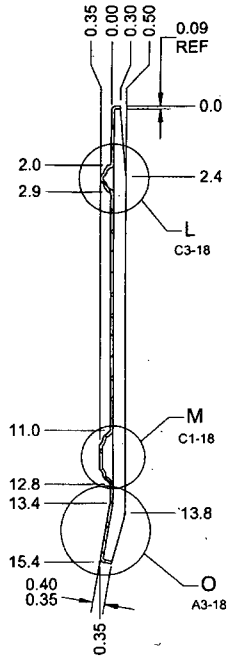
RELEASED
2014 -01- 22

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. E
CHECKED	DC	D4635	SHEET 15 OF 18
MFG. APPR.		TITLE	SCALE
APPROVED		OUTBOARD CEILING PANELS	NTS
DE APPR.			
DATE	14.01.09		

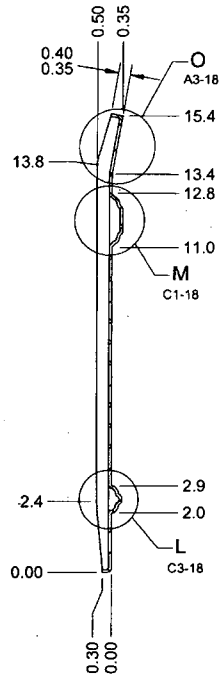
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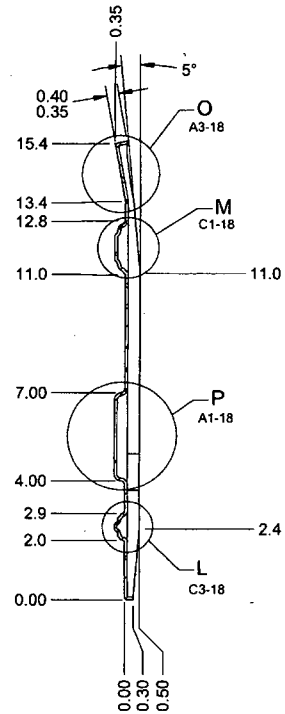
SECTION A-A
SECTION A'-A' OPPOSITE B3-13 B3-14
SCALE 2X



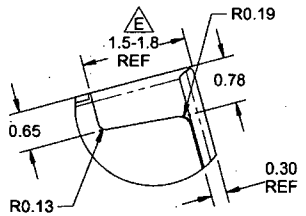
SECTION B-B B7-13 B7-14
SCALE 2X



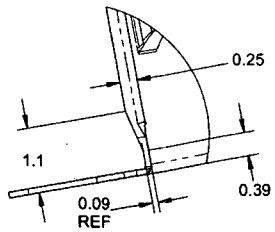
SECTION G-G B4-15 B4-16
SCALE 2X



SECTION K-K C6-16
SCALE 2X



AUXILIARY VIEW R-R
SECTION R'-R' OPPOSITE D7-17
SCALE 2X

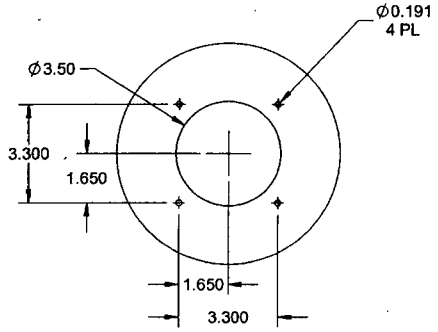


AUXILIARY VIEW S-S
SECTION S'-S' B7-17
SCALE 2X

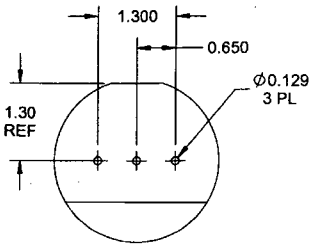
RELEASED
2014-01-22

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	DC	DRAWING NO. D4635 REV. E
MFG. APPR.		SHEET 17 OF 18
APPROVED		TITLE OUTBOARD CEILING PANELS SCALE NTS
DE APPR.		
DATE	14.01.09	

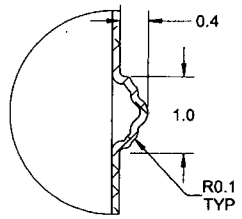
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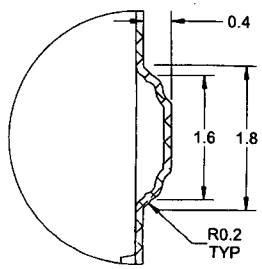
DETAIL D B4-13 B3-14 B5-15 B5-16
SCALE 2X



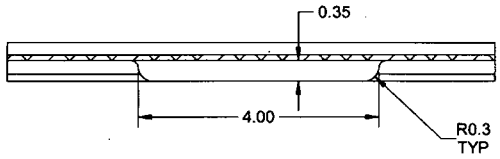
DETAIL E C7-13 B6-14 C6-15 B5-16
SCALE 4X



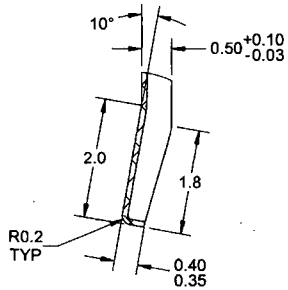
DETAIL L B2-17 B4-17 C5-17 C7-17
SCALE 1.5X

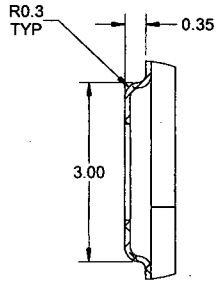


DETAIL M C2-17 C3-17 C5-17 C7-17
SCALE 1.5X



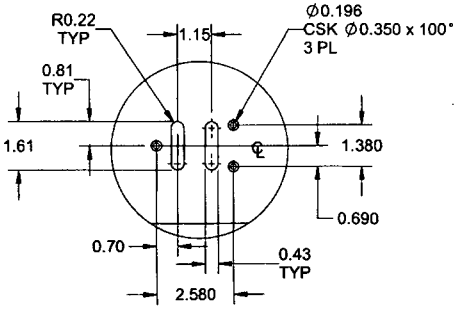
SECTION I-I B5-16
SCALE 4X



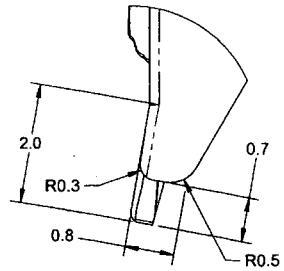


DETAIL O D2-17 D3-17 B5-17
SCALE 2X

DETAIL P C2-17
SCALE 4X



DETAIL Q C5-16
SCALE 2X



DETAIL N B2-13
SCALE 2X

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APPROVED		TITLE OUTBOARD CEILING PANELS SCALE NTS
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